

E-01

Environmental Impacts of Acquiring Fossil Fuel Photocatalytic Property

Abram F. Bishay

Nuclear Materials Authority, PO 530 El Maadi Kattamyia Road, Cairo, Egypt

The increased burning of fossil fuels every year has a negative environmental impact on the atmosphere. The problem could be mitigated through photocatalysis of the hazardous materials evolved from fuel burning. To achieve this goal, the fuels are acquired photocatalytic property where the exhaust gases can be converted photocatalytically to less hazardous materials in the atmosphere.

Fossil fuels contribute many gas pollutants to the atmosphere resulting in global warming, acid rain, ozone, and sooty carbonaceous materials. These pollutions could be resolved through photocatalysis in the atmosphere. The acquired fuel the photocatalytic reactivity through cheap way in this work can be activated using either the ultraviolet (UV) or the UV-visible spectrum. The synchrotron-based analytical techniques offer unequaled capacity to follow different possibilities of the proposed scenario of the hazardous gas flue. The SO_x , NO_x , and CO_2 gases could be directed to keep the atmosphere in a more “green” condition.